

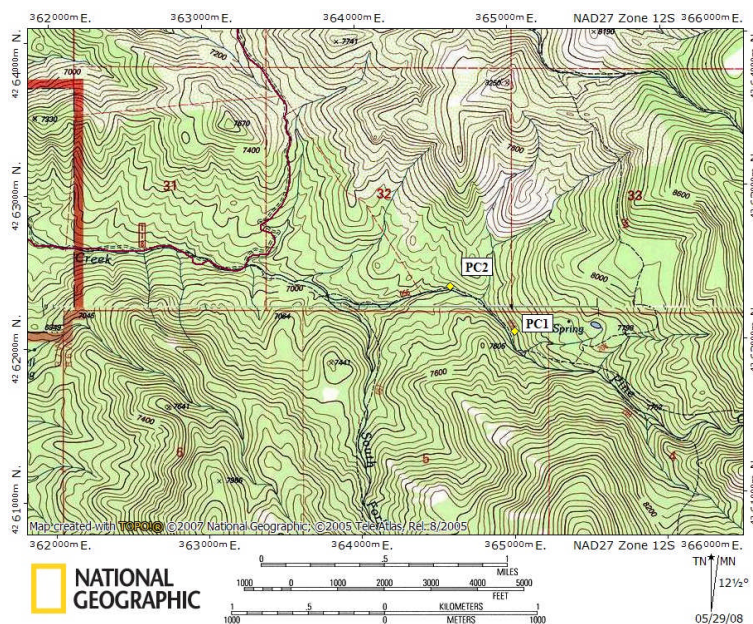
PINE CREEK #2 (PC2)
Riparian Browse Assessment
(1) May 7, 2008
(2) October 9, 2008
Mary O'Brien/Wayne Hoskisson

Pine Creek #2 is located along Pine Creek within the Pine Creek/Sulphurbeds Allotment (Fishlake NF) at the western edge of the Tushar Mountains and south of Sulphurdale. The riparian area is narrow and is dominated by Kentucky bluegrass, cottonwood 1'-3', and a variety of shrubs (Fig. 1), but the remains of an old cottonwood gallery extend onto a slope to the NE, 65'-70' from the creek (Fig. 2). A steep bank ~2' high affords some protection from ungulates for creekside cottonwood (Fig. 3). The cottonwood on the floodplain and slope, however, are bushy (e.g., average 4-5 leaders within 6" of the tallest leader in October on cottonwood 2'-4' tall; see leaders chart, p. 4 below), indicating repeated browsing.

(1: May 7, 2008) As of May 7, 67% of the tallest leaders and 77% of the subleaders of the cottonwood <6' were browsed. Cattle were scheduled to be present in the Pine Creek Pasture June 16 through August 16.

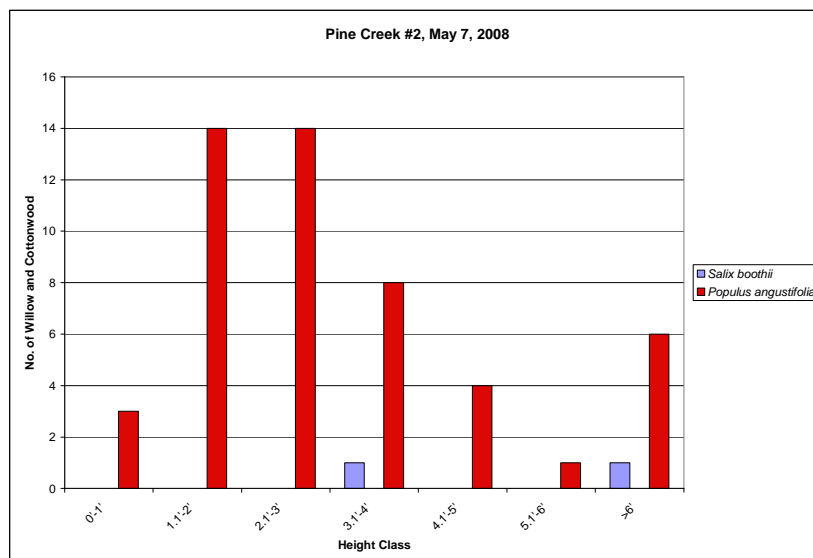
(2: October 9, 2008) As of Oct. 9, 84% of the tallest leaders and 88% of the subleaders of the cottonwood <6' were browsed. Some cottonwood are dead from browsing, or otherwise wholly browsed (see., e.g., Fig. 4). Although cattle were scheduled to be moved from Pine Creek Pasture August 16, on October 9 six cattle were present on the trail downstream of Pine Creek #2 (photo available on request).

Accessible cottonwood elsewhere along the creek are similarly browsed (e.g., see Fig. 5).



PINE CREEK #1 (PC1)	May 7 and October 9, 2008 Hoskisson/O'Brien
Fishlake NF/Beaver RD	Allotment: Pine Creek/Sulphurbeds Pasture: Pine Creek
Stake: 12S 364664E 4262252N (downstream) NAD CONUS 27 Upstream side of uppermost of 3 old cottonwoods between the creek and the road	Elevation: 7,667'
Aspect: SW	Animal sign: cattle, wild ungulates
Ave. Width Riparian Area: Old cottonwood extend 70' back to the NE, but now mostly only cottonwood <6' are present in what would have been the cottonwood gallery.	
Dominant vegetation: Narrowleaf cottonwood, bigtooth maple, <i>Rumex crispus</i> , <i>Equisetum arvense</i> , snowberry, sparse Kentucky bluegrass.	
Other notes: Pine Creek #2 is in Reach A21-7 of the 2003 Level II Riparian Inventory which was noted as having a "downward trend" in forage (Shell Valley Consulting 2003).	

May 7, 2008

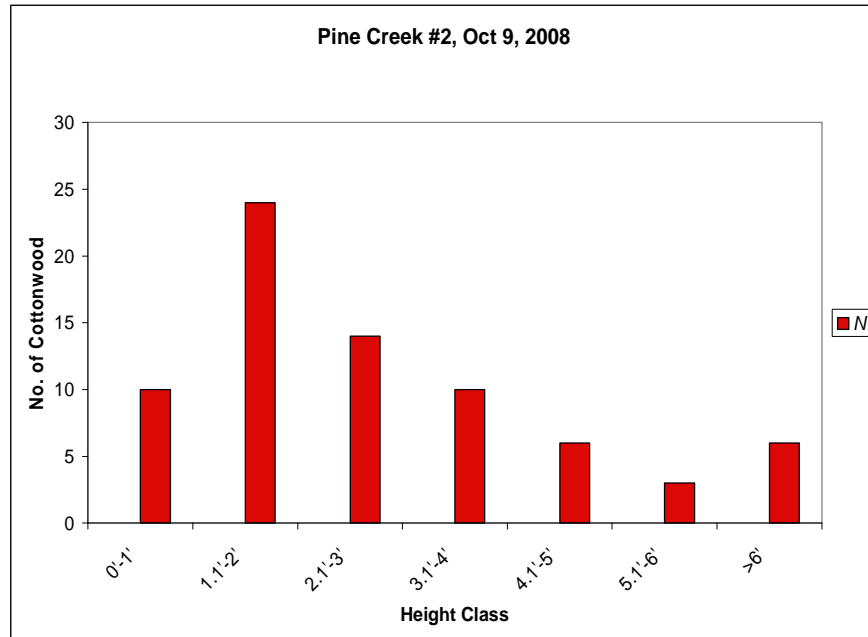


6 *Populus angustifolia* >6': Ave. 5.3"

1 *Salix boothii* >6' tall, 3' wide

Pine Creek #2							
1 <i>Salix boothii</i> , 44 <i>Populus angustifolia</i> <6'							
% tall leaders browsed		% tall leaders browsed or dead		% subleaders browsed		% subleaders browsed or dead	
<i>Salix boothii</i>	<i>Populus angustifolia</i>	<i>Salix boothii</i>	<i>Populus angustifolia</i>	<i>Salix boothii</i>	<i>Populus angustifolia</i>	<i>Salix boothii</i>	<i>Populus angustifolia</i>
0.0	67.4	0.0	76.7	0.0	77.7	0.0	81.3

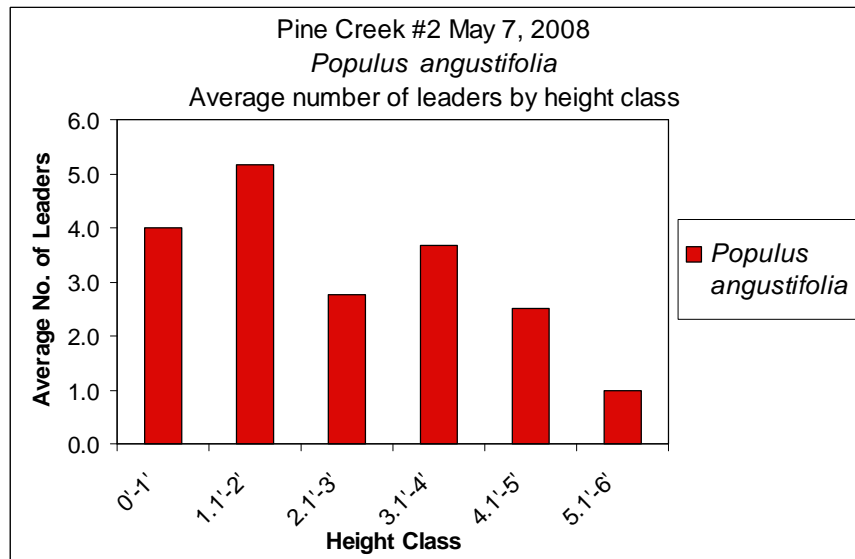
October 9, 2008



6 *Populus angustifolia* >6': Ave. DBH 6.5"

Pine Creek #2(2) Oct 9, 2008 67 <i>Populus angustifolia</i> <6'	
	<i>Populus angustifolia</i>
% tall leaders browsed	83.9
% tall leaders browsed or dead	83.9
% subleaders browsed	87.8
% subleaders browsed or dead	87.8

May 7, 2008



October 9, 2008

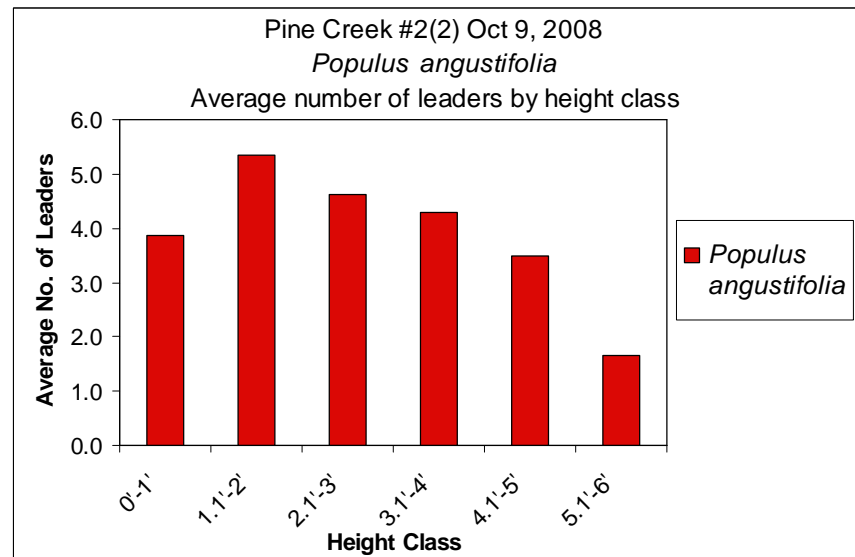




Fig. 1 (5/7/08) PC2; Kentucky bluegrass-dominated bank with cottonwood <6' and old narrowleaf cottonwood.



Fig. 2 (5/7/08) Slope to the NE, with old cottonwood extending 70' from creek, and young cottonwood.



Fig.3 (10/9/08) Steep (2') bank provides a micro-site largely inaccessible to ungulates.



Fig. 4. Browsed 2' cottonwood.



Fig. 5 (10/9/08) Heavily browsed cottonwood patch downstream from Pine Creek #1 and #2.

Pine Creek #2
Riparian Grass/Grasslike Utilization
October 9, 2008

Allotment: Pine Creek/Sulphurbeds

Pasture: Pine Creek

Creek/Stream: Pine Creek

2008 Annual Operating Instructions dates of livestock entry/exit: 6/16-8/16

Surveyors: Hoskisson/O'Brien

Pine Creek #1 is located along Pine Creek within the Pine Creek/Sulphurbeds Allotment (Fishlake NF) at the western edge of the Tushar Mountains and south of Sulphurdale. The five grass/grasslike utilization transects extended from the creek (0') to the road (22'-34'). Kentucky bluegrass and one other grass species were encountered, and they were sparsely distributed (i.e., a grass was encountered within 3" at 27% of the 78 transect points; 73% of the points were bare soil within 3" of the transect point. The average height for Kentucky bluegrass was the same as for the other grass: 1.6".

Grass/Grasslike Utilization: 10/9/08											
Kentucky Bluegrass (<i>Poa pratensis</i>)				Other Grasses				Sedges and/or Rushes			
Ave. ht(in) Accessible	N	Ave. ht(in) Inaccessible	N	Ave. ht(in) Accessible	N	Ave. ht(in) Inaccessible	N	Ave. ht(in) Accessible	N	Ave. ht(in) Inaccessible	N
1.6"	19	5"	15	1.6"	4	2.2"	2	NA	0	NA	0

Methodology note

The average height (inches) of a grass was measured every 2' from 0' to the road (22'-34') along the right side of the 10/9/08 riparian browse transect (see accompanying cottonwood riparian assessment). The grass/grasslike species nearest to, but no farther than 3" from, the transect point was recorded. Kentucky bluegrass was recorded separately from other grasses, as a different Fishlake NF utilization standard (1.5") is applied to Kentucky bluegrass as opposed to hydric grasses/grasslike species (4")ⁱ

The height of grass/grasslike plants accessible to large ungulate grazing was recorded separately from the height of grass/grasslike plants inaccessible to grazing, e.g., inside the base of a large willow, in a channel of water).

ⁱ The four inch stubble height for hydric (i.e., adapted to a wet, but not flooded habitat) plants is part of the allowable forage utilization criteria that were revised through a Fishlake National Forest Plan amendment in 2002. These revised forage utilization criteria prescribe allowable use levels for both upland and riparian sites. As the Fishlake NF explains this: "The description for riparian areas is a uniform 4" stubble height. Reaching the 4" stubble height triggers the time to move livestock, either between units or off the allotment. These criteria allow no manipulation to

plan use of expected regrowth—once the 4” stubble height is reached, livestock are moved, without the opportunity for twice-over use. Livestock are moved to the next pasture or removed from the allotment when any utilization threshold (upland forage utilization, stream bank alteration, riparian forage utilization, riparian vegetation stubble height, or riparian woody browse utilization) is reached. Meeting or exceeding one of these threshold levels initiates a move of livestock.” (USFS 2006)

Fishlake National Forest riparian utilization standards include (USFS 2006):

Riparian hydric species:

4” triggers the time to move livestock between units or off the allotment

Riparian Emphasis Management Areas

6” triggers the time to move livestock between units or off the allotment

Non-hydric Sod-Forming Grass Species in Riparian Areas

1 ½ “ Primarily Kentucky bluegrass--Triggers the time to move livestock between units or off the allotment

References:

Shell Valley Consulting. 2003. Fishlake National Forest 2003 Level II Riparian Inventory: Little North Creek Area. Shell, WY.

US Forest Service, Fishlake National Forest, Beaver Ranger District. 2006. *Final Environmental Impact Statement Reissuance Of Term Grazing Permits On Eight Cattle Allotments Beaver Mountain Tushar Range*. Beaver, UT.